

White Paper Long Term Stewardship

	Information and Definitions:	<i>Comments by Committee Members - Date:</i>
<i>Purpose:</i>	Give a short explanation of how the Long Term Stewardship Committee was formed and give examples of the definition of long term stewardship. List those activities and issues of long term stewardship that relate to the Savannah River Site and give a brief explanation of the current status. This paper will be the basis for future work of the Long Term Stewardship Committee.	<i>Define this is an internal document. – 7/02/10</i>
I.	Long Term Stewardship Committee	
	<p>The Savannah River Site (SRS) Long Term Stewardship Committee, initially the Stewardship Subcommittee under the (SRS) Citizens Advisory Board Strategic and Long Term Issues Committee, was formed due to public interest and the increased amount of discussion surrounding stewardship. As several sites in the DOE-Complex near closure in 2006, discussions and national public workshops are being held to obtain input on long term stewardship.</p> <p>The Stewardship Subcommittee first met on January 9, 2001, to determine the purpose, scope of work and goals of the committee. The first meeting and all subsequent meetings were held by videoconference to enable attendance from both the low country and the site area. The Citizens Advisory Board Executive Committee suggested a separate issue's based committee should be formed to emphasize stewardship issues in April 2002. Nancy Ann Ciehanski was appointed chair of the new committee.</p>	<i>Need to hear presentations from site personnel on long-term stewardship. – 7/10/02</i>
II.	Charter of Long Term Stewardship Committee	
	The Charter for the Long Term Stewardship Committee describes the objectives of the committee, task description/deliverables and team structure. The Charter is attached.	
III.	Definition of Long Term Stewardship	
	Jessie Roberson, Assistant Secretary of Environmental Management, has defined long term stewardship as "Long Term Stewardship includes all activities necessary to ensure adequate protection of human health and the environment following the completion of cleanup, disposal, or long-term stabilization at a site or portion of a site."	

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	<p>In the <i>Stakeholder Report on Stewardship</i> by the Oak Ridge Reservation End Use Working Group, stewardship of remediated sites with residual contamination was defined as: "Acceptance of the responsibility and the implementation of activities necessary to maintain long-term protection of human health and of the environment from hazards posed by residual radioactive and chemically hazardous materials."</p> <p>The Long Term Stewardship Committee defined the objective of long term stewardship as: "To bring about acceptance of the stewardship responsibility and the implementation of activities necessary to maintain long-term protection of human health and of the environment from hazards posed by residual radioactive and chemically hazardous materials."</p>	
IV.	Issues or Activities Required for Long Term Stewardship	
	The following are issues or activities that need to be considered when developing a long-term stewardship program.	
	<ul style="list-style-type: none"> • Agree on Definition – There is no common definition/understanding/ agreement of the long-term stewardship elements. Should the definition of long term stewardship be site specific or a national definition? 	
	<ul style="list-style-type: none"> • Long Term Stewardship Guidance – At this time there is no standardized guidance from DOE-headquarters (HQ) related to long term stewardship. DOE-HQ developed a document called the Long-Term Stewardship Site Acceptance Criteria that was provided for public comment. The purpose was to establish a high level criteria that could be used within the Department, between federal agencies, and the private sector to support transition into long-term stewardship. DOE-HQ has not developed specific goals for the sites. Goals should be developed. 	
	<ul style="list-style-type: none"> • Define Long-Range – The length of time considered for long range is not agreed upon. Some feel it should be thousands of years, some feel it should be hundreds of years. There is a growing consensus that it should be a period within reason that people can understand or relate to. Environmental Restoration (ER) cleanup Records of Decision can be used for the short term. 	<p><i>A working definition of the length of the operational federal stewardship period (i.e., 25, 50, 100 years) should be determined by DOE and the regulators as one of the more important issues to be resolved; this period is not linked directly to the length of time for radioactive or hazardous wastes to decline to satisfactory levels, but for citizens/regulators to know what reasonable expectation can be made today to calculate the radioactive/hazardous burdens that will remain once federal workers operationally</i></p>

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		<p><i>cease their oversight and safeguard operations at DOE facilities; this very important decision will have ramifications on closure options. – 7/10/02</i></p> <p><i>Need to focus on long-term more than short term as identified in previous sentence (short term work). – 7/10/02</i></p> <p><i>Consider phases: Current to 2047 and from 2047 on. – 7/10/02</i></p>
	<ul style="list-style-type: none"> • Records of Decision (RODs) – Not all current RODs include language related to actions that will take place in the long-term stewardship phase or institutional controls. Assure that all RODs include long-term stewardship institutional control actions/decision. 	
	<ul style="list-style-type: none"> • Determine and Maintain Site Assumptions – Site assumptions for long range stewardship must be determined and agreed upon. As these assumptions change over time, an updated list of the assumptions should be maintained. Some of the existing site assumptions are as follows: <ul style="list-style-type: none"> • Site will remain under the Federal government’s ownership with its current boundaries in perpetuity • Site will have ongoing missions for the foreseeable future – not a near-term “closure site”. • Facilities deactivated to maintain condition more cost-effectively. • Limited decontamination and decommissioning planned. • Site zoning will remain consistent with the Site Comprehensive Plan • Environmental Management (EM) missions will be completed by 2047 and then transitioned to long term stewardship. • Long-term stewardship scope and cost for deactivated facilities and remediated soils and water are considered as part of the EM liability. • Additional characterization and treatability studies are still required in some areas prior to initiating long term stewardship. • Environmental Restoration activities are fairly well defined – facility disposition activities will be developed during a detailed planning phase, based on then current regulatory requirements and available technologies. 	
	<ul style="list-style-type: none"> • SRS Closure Schedule – Based on site assumptions, at what point will the site be considered in a long term stewardship capacity or be considered at the completion of cleanup? What is the final state of the site at completion of the EM program? 	
	<ul style="list-style-type: none"> • Ownership at Closure – DOE-EM currently has the landlord function during 	

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	cleanup efforts at the site. There has been speculation that when the cleanup efforts are complete the site landlord function would be turned back over to the predominant SRS Division/Office within DOE. At the completion of their mission, the site would be turned over to another entity of the Federal government. Whom would that be and will they have the technical knowledge to meet the challenges of maintaining the site? With a continuing mission at the site, will the cleanup effort ever be complete until those missions are over? If not, will EM always be a part of the site until missions are complete?	
	<ul style="list-style-type: none"> • Contamination at Closure – In order to be assured that institutional controls are appropriate at closure, information concerning the amount, location and extent of contamination must be known. Consequences to groundwater, surface water, soil and air are critical. 	
	<ul style="list-style-type: none"> • Surveillance and Monitoring after Closure – Who will be required to carry out the surveillance and monitoring activities at the site once EM leaves the site? Will the technical expertise be available? There is concern for the groundwater, surface water as well as the land from future contamination. How will information on new cost effective technology be implemented and by whom? 	
	<ul style="list-style-type: none"> • Oversight Stewards – Who will be the oversight stewards at SRS? Who will ensure the stewardship plans meet their intended purposes? Remediation must be performed as intended and the best interest of the public must be assured. Will this be the Federal government or local government and what organization within that government? 	
	<ul style="list-style-type: none"> • Regulatory Commitments and Regulations – At this time there are no RODs or agreements with regulators as to acceptable final disposition methodology for major nuclear facilities, e.g., cacooning, grouting, greenfield, etc. The Land Use Control Assurance Plan can be used as a start. 	
	<ul style="list-style-type: none"> • Storage and Retrieval of Records – Decisions on the storage and retrieval of records is critical. Knowing the current inventory and what is contained in the burial sites must be maintained. This could be the weak link in the strong institutional controls of the site. As personnel retire and leave the site, personnel knowledge will not be available. Records and documents will be the only source of historical knowledge. Are records (deeds) of SRS available at the Registrar of Mesne Conveyance offices in local counties? 	<i>Ensure records left behind are accessible and available. – 7/10/02</i>
	<ul style="list-style-type: none"> • Costs of Long Term Stewardship – There is no consistent, standardized complex-wide model for projecting long-term stewardship lifecycle costs. Minimal funding has been made available for long term stewardship efforts. Where does the public think long-term stewardship should be on the Integrated Priority List? Independent process that is strictly oversight. Ensure records left 	<i>There should be untouchable funding directed solely to long-term stewardship. Independent process that is strictly oversight. – 7/10/02</i>

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	behind are accessible and available. There should be untouchable funding directed solely to long-term stewardship.	
	<ul style="list-style-type: none"> • Institutional Controls – What are the active and passive institutional controls for the site? Would they include deed restrictions, ordinances, permits, easements, advisories, zoning, site registries and guards monitoring the site? What institutional controls are available at other sites that work and would they relate to SRS? Can institutional controls be determined before we know the end-state of the site? How will the institutional controls be maintained, evaluated and ensured effective? Who will conduct surveillance, monitoring and repair? 	
	<ul style="list-style-type: none"> • Engineered Controls – What are the engineered controls required for institutional control? What is the relationship of the physical controls to the contaminated media and structures? Do the physical controls include fences, gates, monuments, caps and markers? Who will conduct surveillance, monitoring and repair? 	
	<ul style="list-style-type: none"> • Technology – Technology advances and their impact on cost are unknown at this time especially given the number of years before significant long term stewardship requirements emerge. 	
	<ul style="list-style-type: none"> • Risks – What is the inherent human and environmental risk of the material that is either buried or stored at the site? Define the risk. How long will the risk persist? Will there be technical ability available to address and manage the risk? Models used for scoring hazards and risks associated with leaving facilities in long term storage should be reviewed and the committee involved in the process. 	
	<ul style="list-style-type: none"> • Emergency Services after Closure – If an emergency occurs who will be responsible for responding to that emergency? Will they be technically qualified to handle the hazardous material that they may come in contact with? Who will take corrective action? 	
	<ul style="list-style-type: none"> • Storage of Material – Determine the length of time of storage of waste in drums, 3013 containers and other storage containers. Determine life of the containers and develop plans on what should be done after the life of those containers. 	
	<ul style="list-style-type: none"> • New Facilities – Monitor the location of new facilities at SRS to keep all facilities within the industrial zone. Reuse of existing facilities should be considered before new facilities are build. 	<i>Infrastructure not being kept up. DOE needs to keep maintaining facilities as new missions come to SRS. – 7/10/02</i>
	<ul style="list-style-type: none"> • National Environmental Research Park (NERP) – Institutionalize the NERP to maintain research activities and opportunities. 	
	<ul style="list-style-type: none"> • Long Term National Security Site – In the Performance Management Plan there is discussion of designating SRS as a Long Term National Security Site. It infers that such a designation would provide a clear commitment that SRS would be maintained under institutional control for an extended period of time. What is 	

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	required for that designation? How will it effect long-term stewardship? How does the NERP relate to the Long Term National Security Site?	
	<ul style="list-style-type: none"> • SRS Long Range Comprehensive Plan – Chapter 8 of this plan is referred to as the long-term stewardship section of the plan. The Long Term Stewardship needs to be involved in the development of the next draft of this plan. 	
	<ul style="list-style-type: none"> • Relationship to Other Sites – Some of the other sites in the DOE complex are planning on closing by 2006. Is there any significance to the Savannah River Site in their closing? What guidelines and long term stewardship controls are they putting in place that could relate to our site? 	
	<ul style="list-style-type: none"> • SRS End State Plan – The Facility Disposition Division is considering developing an End State Plan for the SRS. The Long Term Stewardship Committee is extremely interested in such a plan and will request that the committee be kept advised of the progress and be involved in development of the plan. What is the relationship of the SRS End State Plan and the draft SRS Long Range Comprehensive Plan? End state plan should flow into long-term stewardship. Hear from FDD folks on currennt plans. Need to get built into the loop on FDD plans for site. Need to look at site's long-term planning. 	<i>End state plan should flow into long-term stewardship. Hear from FDD folks on current plans. Need to get built into the loop on FDD plans for site. Need to look at site's long-term planning. – 7/10/02</i>
V.	Reference List	
	The Long Term Stewardship Committee has developed a reference list of the various documents and literature that they feel is relevant to the long-term stewardship efforts at the site. Attached is a reference list of that material.	